Referendum for Energy Performance Contracting

Public Meeting Presentation

Town of Enfield

August 28, 2008

CCM ENERGY

ELECTRICITY • NATURAL GAS • EFFICIENCY • STREETLIGHTING

SIEMENS

Agenda

1. CCM energy team
2. Overview of energy performance contracting
3. Three key concepts 
4. Proposed Facility Improvement Measures
5. Not to exceed project cost paid 100% by project savings
6. Sample experience and references
7. Conclusion

CCM Energy Team

- Since 1966, CCM has served the needs of its member municipalities; its service programs have saved Connecticut's municipalities millions of dollars. *CCM Energy's Efficiency Program continues in that tradition.*
- CCM selected Siemens as its partner for energy efficiency services following a competitive process. Siemens' customer satisfaction rating is greater than 96% in Connecticut and with 10 offices, more than 600 employees, and a service fleet of 60+ vehicles, Siemens is always local.

What is Energy Performance Contracting?

Performance Contracting installs energy efficient facility improvements, with **no** additional expense, paid for out of **guaranteed** savings from your **existing** operating budget.

What is Energy Performance Contracting? (cont.)

- Siemens guarantees that savings will meet or exceed annual payments to cover all program costs over a contract term of 20 years
- If sufficient savings don't materialize, Siemens pays the difference, not Enfield
- To ensure savings, Siemens offers staff training and long-term support services

Benefits of Energy Performance Contracting

- Reduced costs
- Better buildings
- Improved employee morale and efficiency
- A wise investment
- Improvements without sacrifice
- Proven technology and expertise
- Sole source responsibility
- Positive environmental impact

Success depends upon understanding three key concepts:

Technical

Financial

Contractual

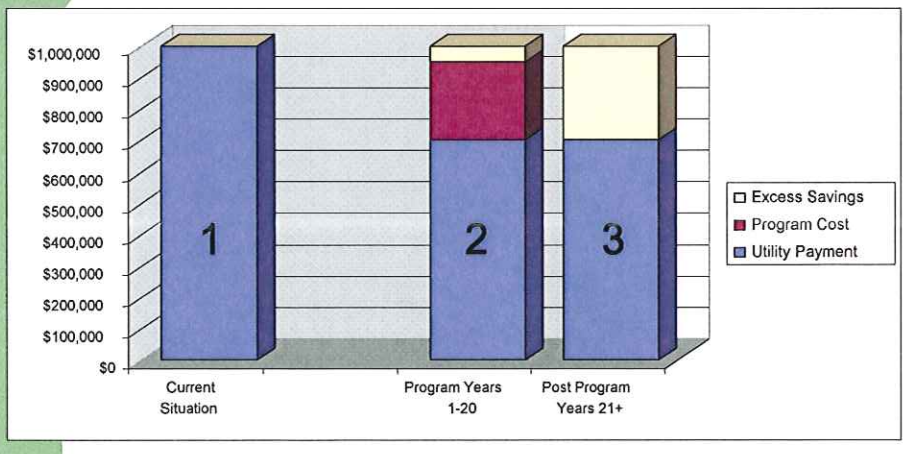
Technical

- Lighting and Occupancy Sensors
- Energy Management System
- Heating, Ventilation and Air Conditioning (HVAC) Improvements
- High Efficiency Boiler Replacement
- Building Shell
- Swimming Pool Improvements
- Re-commissioning
- Green/Renewable Technologies
- Miscellaneous

Financial

- **Guaranteed savings pay for all costs**
- **Dollars that would have been paid to utilities are now invested in new equipment**
- **Ongoing costs are included in the program**
- **Budget neutral**

How the Money Flows



1. Pre-Program – *increasing energy prices impact maximum energy use*
2. Program – *increasing energy prices affect minimum energy use/immediate savings plus future cost-avoidance*
3. Post-Program – *100% of savings flow directly to your bottom line*

Contractual

- Purchased through CCM Energy
- Guaranteed savings pay for all costs
- What happens if…?
  - Hotter/colder
  - Energy prices change
  - Add buildings
  - Eliminate buildings
  - Schedule changes
- How do we measure success?

Vehicle Cost/Benefit Analysis

Conventional Vehicle

- $20,000
- 20 mpg
- 20,000 miles per year
- Gas - $3.00/gallon
- 1000 gallons @ $3 = $3,000 per year in gas

Fuel Efficient Vehicle

- $23,000
- 25 mpg
- 20,000 miles per year
- Gas - $3.00/gallon
- 800 gallons @ $3 = $2,400 per year in gas

Savings = 200 gallons/year
Savings = $600/year
Payback - $3,000/$600 = 5 years
Positive Environmental Impact

Vehicle Cost/Benefit Analysis Updated

Conventional Vehicle
- $20,000
- 20 mpg
- 20,000 miles per year
- Gas - $4.00/gallon
- 1000 gallons @ $4 = $4,000 per year in gas

Fuel Efficient Vehicle
- $23,000
- 25 mpg
- 20,000 miles per year
- Gas - $4.00/gallon
- 800 gallons @ $4 = $3,200 per year in gas

Savings = 200 gallons/year
Savings = $800/year
Payback - $3,000/$800 = 3.75 years
Positive Environmental Impact

Our program was designed to:

- Maximize energy and related savings
- Fund improvements to your facilities using savings from the *existing* budget
- Guarantee that savings will meet or exceed program costs, thus *eliminating your down-side risk*
- Enable you to avoid costs associated with rising energy prices
- Provide long-term service solutions
- Positive environmental impact

Project Cost = Project Savings

Project not to exceed cost = $9,700,000

Annual guaranteed savings = $700,000

Term = 20 years

- Siemens guarantee: annual savings will pay 100% of annual costs
- If not, Siemens will issue a payment to Enfield for any shortfall each and every year of the 20-year term
- Budget neutral

Sample Experience and References

- **Borough and Schools of Naugatuck**
- **Town and Schools of Mansfield**
- **Regional School District 19**
- **Town of Cromwell**

Sample References

Naugatuck (Borough and School buildings)

$12.6 million project (Phases 1 – 4 complete; Phase 5 current)

- High Efficiency Boilers
- Steam Traps
- Condensate System Improvements
- Lighting
- Lighting Controls
- High Efficiency Chiller System
- Cooling Tower
- Energy Management System
- Electric Heat to Hot Water Conversion
- Variable speed drives
- Pool cover

Sample References

Mansfield (Municipal and School buildings)

$475,000 project

- Lighting
- Lighting Controls
- Building Envelope
- Computer Network Energy Manager System
- Vending Miser
- Building Controls
- Pipe Insulation

Sample References

- **Regional School District #19**
  $246,000 project
- **Lighting**
- **Lighting Controls**
- **Building Envelope**
- **Computer Network Energy Manager System**
- **Vending Miser**
- **Building Controls**

Sample References

Cromwell municipal buildings
$1.1 million project (Phase 1 complete)

- **High Efficiency Chiller** (complete)
- **High Efficiency Condensing Boiler**
- **Energy Management System**
- **Lighting and Lighting Controls**
- **VFDs and Motors**
- **Building Envelope**
- **Building Roof Insulation**
- **Programmable Thermostats**
- **Vending Miser**
- **Building Controls**

Conclusion

Sounds great. How "risky" is this for Enfield?

- Performance guarantee shifts the risk to Siemens
- Best equipment ensures savings longevity
- Guaranteed energy savings pay for the improvements
- If savings don't materialize, Siemens pays the difference, not Enfield

Thank you for listening.

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Proposed FIMs

Lighting

- Lighting Retrofits
- Lighting Controls:

Occupancy Sensors

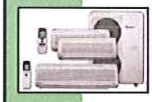
Proposed FIMs

Energy Management

- Energy Management System
- Energy Management System Optimization
- Computer Network Energy Manager System

Proposed FIMs

Heating/Ventilation/Air Conditioning



High Efficiency Boilers
- Steam Traps and Steam System Improvements
- Pipe Insulation
- Premium Efficiency Motors
- Variable Frequency Drives
- Energy Efficient Window Air Conditioning Units
- Re-commission Select HVAC Equipment
- Optimize Domestic Hot Water System
- Upgrade/New HVAC Equipment
- New Unit Ventilators

Proposed FIMs

Swimming Pool

- Dehumidification Unit
- Pool Cover

Proposed FIMs

Building Shell

- Building Envelope Improvements
- Energy Efficient Windows

Other Measures

- Vending Machine Controls
- Kitchen Exhaust Hood Controls
- Controls for Walk-in Freezers and Refrigerators